

Message

From: Ramanauskas, Peter [ramanauskas.peter@epa.gov]
Sent: 3/17/2017 8:13:55 PM
To: Sasnow, Zachary [sasnow.zachary@epa.gov]
CC: Moore, Kendall [moore.kendall@epa.gov]
Subject: FW: RE: Fulcrum-Sky Valley Sampling Results (March 6, 2017 Sampling Event)

Hi Zack,

Below is the response to your QA questions that Kendall sent to the school.

Peter

From: Piplic, Devlin [mailto:piplicd@monroe.wednet.edu]
Sent: Friday, March 17, 2017 2:58 PM
To: Ramanauskas, Peter <ramanauskas.peter@epa.gov>
Cc: Mullin, Michelle <Mullin.Michelle@epa.gov>; Moore, Kendall <moore.kendall@epa.gov>; John Mannix <mannixj@monroe.wednet.edu>
Subject: Fwd: RE: Fulcrum-Sky Valley Sampling Results (March 6, 2017 Sampling Event)

Peterson,

Here are the responses for the questions asked by Kendall.

Devlin

----- Forwarded message -----

From: "Ryan Mathews" <rmathews@efulcrum.net>
Date: Mar 17, 2017 12:54 PM
Subject: RE: Fulcrum-Sky Valley Sampling Results (March 6, 2017 Sampling Event)
To: "Piplic, Devlin" <piplicd@monroe.wednet.edu>
Cc: "John Mannix" <mannixj@monroe.wednet.edu>, "Peggy Williamson" <pwilliamson@efulcrum.net>

Devlin,

Thank you for forwarding over Kendall's questions. I've reviewed with ALS Global and have prepared the following where the answers follow the two questions:

1) Page 13 of the PDF states that matrix interference caused poor surrogate recovery for sample batch 41723. On page 15, batch 41723 data is listed, and surrogate recovery for the batch is within appropriate limits. Please clarify the discrepancy.

Two surrogates are utilized by ALS Global during the analysis for PCBs, *Tetrachloro-m-xylene (TCMX)* and *Decachlorobiphenyl (DCBP)*. The two surrogates are selected and used as they are intended to represent known analyte detections within the GCMS run. The TCMX occurs before the PCB detection range and DCBP occurs after the PCB detection range. On sample 1703194-01A, an unknown analyte was present with the GCMS run prior to the TCMX surrogate. The unknown analyte is not a PCB Aroclor. This is the surrogate error indicated on page 13 by ALS Global. This is the only sample with a TCMX surrogate recovery failure. The DCBP surrogate was recovered and within the performance criteria.

Page 15 presents the results for the Method Blank (MBLK) and for the laboratory control spike (LCS). No surrogate recovery issues were reported by ALS Global during the analysis of the MBLK or LCS.

The analytical performance was reviewed by the laboratory as a portion of their internal QA/QC process and in their determination found to be consistent with good laboratory practice, in conformance with the method requirements, and met the laboratory standards under ALS Global's SOP for the method.

2) Per method TO-10A (link [here](#)), there are several field QC samples in section 15.2 of the method that appear to be missing. In addition to the field blank that was submitted, there should also be a field spike sample (15.2.3 – spiked PUF cartridge that is brought to the field but not used, and submitted to the lab; serves a similar purpose to a Matrix Spike sample), and a solvent process blank (15.2.4 - this might be the 'lab blank' they submitted – need clarification on what the 'lab blank' is). There also are no duplicates and MS/MSD sets for the wipe samples. There should be one of each (1 duplicate and one MS/MSD set). Again, they submitted a 'lab blank' wipe sample along with a 'field blank' wipe sample; the difference between the two needs to be clarified.

AIR – TO-10a

Fulcrum submitted two QA/QC samples, one field blank and one laboratory blank, with the collected air samples. Both sample cassettes were prepared by ALS Global and provided with all other project samples. As presented in Fulcrum's QAPP, the field blank was handled with all other collected samples, but was not opened and the media was not exposed to the environment (within the building or otherwise). The lab blank was held in reserve within the inspector's vehicle during sample collection. The sample was previously stored with all other samples, but was not taken within the school building during the testing. The lab blank was included within the insulated cooler with all other samples during sample packaging and was shipped to ALS Global for analysis.

ALS Global utilized a "spike sample" to evaluate laboratory performance. The laboratory control spike was prepared with 20 microgram (μg) of Aroclor 1260. Similarly, the LCS duplicate (LCSD) also had 20 μg of Aroclor 1260. Both the LCS and the LCSD were within the percent recovery (%REC) for the methodology. Fulcrum did not submit separate spike samples during the project.

ALS Global reports that they do not routinely prepare PCB spiked PUF cassettes for field use. However, such can be prepared if requested for future projects. Additional care would be needed to ensure that the PCB containing PUFs or wipes are further separated as to prevent cross-contamination potential. Spike samples can provide an additional measure of laboratory performance from a inspectors performance, but the laboratory already completes internal spike sample analysis with the LCS and the LCSD to demonstrate reliability of their work.

WIPE – 40 CFR 761.61

Fulcrum submitted two QA/QC samples, one field blank and one laboratory blank, for the wipe samples. The handling for both of these samples occurred in the same manner as the air samples described above.

For each wipe, Fulcrum collected a sample using one hexane wipe to collect the sample from a 100 cm^2 area as described in EPA's sampling guidance (<https://www.epa.gov/pcbs/how-test-pcbs-and-characterize-suspect-materials>) and regulation (40 CFR 761.123 Definitions – Standard wipe test - http://www.ecfr.gov/cgi-bin/text-id?SID=ac5e62aa92dabe72953a7867a470c305&mc=true&node=pt40.31.761&rgn=div5#se40.34.761_1123).

The laboratory processes the one wipe and prepares a small volume of extraction that is almost entirely used in the PCB analysis. The sample preparation methodology uses a hexane extraction to collect and concentration the PCBs (if present). Insufficient extract volume remains to complete additional analysis. As such, the use of matrix spike (MS) and matrix spike duplicated (MSD) is not practical within the current use of only collecting one wipe sample from 100 cm^2 area.

Under the wipe sampling of a 100 cm² area, the method reporting limit is 1.0 micrograms per liter (µg/L), which is adequate to meet the cleanup standard of 10 µg/100 cm². Diluting the hexane extraction to increase the sample volume would increase the method reporting limit and could mask low concentrations of PCBs.

Both a field derived MS and MSD rely upon additional extraction volume from the same sample. A second, adjacent sample would not represent the same sample. Rather, using four wipes to collect from a 400 cm² area, and placing all of the wipes in a common sampling container would provide a 4x larger extraction and would provide the additional extraction needed to complete MS and MSD. As a result in the laboratory results representing the average concentration across the entire 400 cm² area. This would need to occur at each and every wipe sample location and could adversely increase the method reporting limit, masking low concentrations of PCBs.

Please let me know if you have any questions about the above, or further questions are received from EPA.

Thank you,

Ryan

Ryan K. Mathews, CIH, CHMM

Principal | Fulcrum Environmental Consulting, Inc.

509.574.0839 | rmathews@efulcrum.net

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From: Piplic, Devlin [<mailto:piplicd@monroe.wednet.edu>]

Sent: Wednesday, March 15, 2017 8:51 AM

To: Ryan Mathews <rmathews@efulcrum.net>
Cc: John Mannix <mannixj@monroe.wednet.edu>
Subject: Fwd: Fulcrum-Sky Valley Sampling Results (March 6, 2017 Sampling Event)

Ryan,

We had some questions from the EPA regarding the Quality Assurance Project Plan. Can you clarify and answer the 2 questions asked by Kendall below?

Devlin

----- Forwarded message -----

From: **Moore, Kendall** <moore.kendall@epa.gov>
Date: Wed, Mar 15, 2017 at 8:08 AM
Subject: Re: Fulcrum-Sky Valley Sampling Results (March 6, 2017 Sampling Event)
To: "Mannix, John" <mannixj@monroe.wednet.edu>, Jeff Ketchel <jketchel@snohd.org>, "Mullin, Michelle" <Mullin.Michelle@epa.gov>, "Ramanauskas, Peter" <ramanauskas.peter@epa.gov>
Cc: Deka Smith <smithf@monroe.wednet.edu>, Devlin Piplic <piplicd@monroe.wednet.edu>, Karen Rosencrans <RosencransK@monroe.wednet.edu>, Nancy Bernard <nancy.bernard@doh.wa.gov>, Kevin Plemel <kplemel@snohd.org>, Amanda Zych <azych@snohd.org>

John and Devlin, below are some items we need clarified to complete our QA/QC review of the data package you submitted. With regards to scheduling a meeting, I haven't gotten responses from everyone, so I will postpone scheduling the meeting until we get your response to the items below. Hopefully by then I'll know everyone's availability.

- 1) Page 13 of the PDF states that matrix interference caused poor surrogate recovery for sample batch 41723. On page 15, batch 41723 data is listed, and surrogate recovery for the batch is within appropriate limits. Please clarify the discrepancy.

- 2) Per method TO-10A (link [here](#)), there are several field QC samples in section 15.2 of the method that appear to be missing. In addition to the field blank that was submitted, there should also be a field spike sample (15.2.3 – spiked PUF cartridge that is brought to the field but not used, and submitted to the lab; serves a similar purpose to a Matrix Spike sample), and a solvent process blank (15.2.4 - this might be the 'lab blank' they submitted – need clarification on what the 'lab blank' is). There also are no duplicates and MS/MSD sets for the wipe samples. There should be one of each (1 duplicate and one MS/MSD set). Again, they submitted a 'lab blank' wipe sample along with a 'field blank' wipe sample; the difference between the two needs to be clarified.

From: Moore, Kendall
Sent: Monday, March 13, 2017 12:33 PM
To: Mannix, John; Jeff Ketchel; Mullin, Michelle; Ramanauskas, Peter
Cc: Deka Smith; Devlin Piplic; Karen Rosencrans; Nancy Bernard; Kevin Plemel; Amanda Zych
Subject: RE: Fulcrum-Sky Valley Sampling Results (March 6, 2017 Sampling Event)

All; we should meet to discuss the sample results from the March 6th sampling event. How is Wednesday March 15, morning or afternoon; or Thursday March 16th?

FYI, Pete and Michelle are out of the office today, so I'll wait to hear from them tomorrow before confirming a time. Also, John and Devlin informed me that the results from the CTE room sample that is being collected today may be ready by Thursday.

From: Mannix, John [mailto:mannixj@monroe.wednet.edu]
Sent: Thursday, March 09, 2017 5:26 PM
To: Jeff Ketchel <jketchel@snohd.org>; Mullin, Michelle <Mullin.Michelle@epa.gov>; Moore, Kendall <moore.kendall@epa.gov>
Cc: Deka Smith <smithf@monroe.wednet.edu>; Devlin Piplic <piplicd@monroe.wednet.edu>; Karen Rosencrans <RosencransK@monroe.wednet.edu>; Nancy Bernard <nancy.bernard@doh.wa.gov>; Kevin Plemel <kplemel@snohd.org>; Amanda Zych <azych@snohd.org>
Subject: Fwd: Fulcrum-Sky Valley Sampling Results (March 6, 2017 Sampling Event)

Jeff, Michelle, and Kendall,

Below, and attached, please find results from the PCB air and wipe sampling that Fulcrum Environmental took at Sky Valley Education Center on Monday, March 6th.

All air sampling for PCBs came back as non-detectable. The CTE space testing was not completed given that the PUF tube fell off the air pump and a window to the space was left open early in the testing window, as has previously been reported. Additional test media has been ordered and re-testing of this space is currently scheduled for this coming Monday (March 13).

The two wipe samples with low levels of PCBs were taken in electrical rooms. I.E., spaces where students are not allowed, and where staff other than custodial or maintenance staff would rarely enter. Even though these findings are below the EPA action level we will be conducting appropriate cleaning operations with trained staff to further reduce or eliminate these levels.

As this is the second set of confirmation tests conducted since the testing anomaly that indicates that there are no PCBs in the air in the seven spaces in question, and given

that this set of tests was conducted by an entirely different company than the prior set (which also came back negative), we would like to release these spaces for student occupancy and use on Monday morning.

We can certainly await re-testing of the CTE space before releasing it for student occupancy, however, given that we do have confirmation testing conducted previously by PBS Environmental that indicates there really are no PCBs present in the air of that space either, and given what we now consider to be overwhelming evidence that the anomalous positive results were exactly that, an anomaly in the test itself, we wonder whether further delaying release of the CTE space is truly necessary.

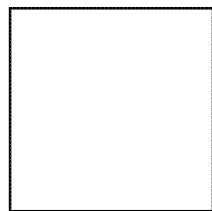
We look forward to hearing back from you as soon as possible, and hope that a conference call can be arranged for tomorrow (Friday) morning to discuss these findings and to plan how to move forward.

Respectfully,

John Mannix

Assistant Superintendent, Operations

D 360.804.2579 | T 360.804.2570
200 E. Fremont St. Monroe, WA 98272



----- Forwarded message -----

From: **Piplic, Devlin** <piplicd@monroe.wednet.edu>

Date: Thu, Mar 9, 2017 at 2:53 PM

Subject: Fwd: Fulcrum-Sky Valley Sampling Results (March 6, 2017 Sampling Event)

To: John Mannix <mannixj@monroe.wednet.edu>, Fredrika Smith <smithf@monroe.wednet.edu>

Cc: Karen Rosencrans <rosencransk@monroe.wednet.edu>

Good Afternoon,

Here are the test results from Monday. There are no detectable PCB levels in the air in any location tested. There were hits in the wipe samples, but they are below the EPA regulatory levels. These two locations were taken on the floor in the electrical rooms.

Devlin

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From: **Ryan Mathews** <rmathews@efulcrum.net>

Date: Thu, Mar 9, 2017 at 2:42 PM

Subject: Fulcrum-Sky Valley Sampling Results (March 6, 2017 Sampling Event)

To: "Piplic, Devlin" <piplicd@monroe.wednet.edu>

Cc: Peggy Williamson <pwilliamson@efulcrum.net>

Devlin,

Attached please find the laboratory results for the samples collected by Fulcrum on March 6, 2017 and summarized in the table below. Submitted samples included 12 air samples and 10 wipes samples. Of the submitted air samples, two were not analyzed as a result of a cassette broken during collection and an open door to one of the electrical rooms.

Aroclor 1260 were present in samples from the concrete floors in the Large Gym Electrical Room and the CTE Electrical Room. Both wipe samples were reported with total PCB concentrations below the EPA threshold of 10 micrograms (ug) per 100 square centimeters (cm²). For comparison, the air sample from the Large Gym Electrical Room did not have any detected PCBs present.

Sample	Location	Air/Wipe	Result
030617-01	Room F, Annex Building	Air	No PCBs Present
030617-02	Storage in Girls Locker Room	Air	No PCBs Present
030617-03	Girls Locker Room	Air	No PCBs Present
030617-04	Small Gym	Air	No PCBs Present
030617-05	Small Gym Electrical Room	Air	No PCBs Present
030617-06	Gathering Room	Air	No PCBs Present
030617-07	CTE	Air	HOLD / NOT ANALYZED
030617-08	Large Gym Electrical Room	Air	No PCBs Present
030617-09	CTE Electrical Room	Air	SAMPLE DAMAGED / NOT ANALYZED
030617-10	West Pod Mezzanine	Air	No PCBs Present
030617-11	Small Gym Electrical Room	Wipe	No PCBs Present
030617-12	Small Gym Electrical Room	Wipe	No PCBs Present
030617-13	Large Gym Electrical Room	Wipe	No PCBs Present
030617-14	Large Gym Electrical Room	Wipe	Aroclor 1260 at 5.2 ug/100 cm ²
030617-15	CTE Electrical Room	Wipe	No PCBs Present
030617-16	CTE Electrical Room	Wipe	Aroclor 1260 at 8.5 ug/100 cm ²
030617-17	West Pod Mezzanine	Wipe	No PCBs Present
030617-18	West Pod Mezzanine	Wipe	No PCBs Present
030617-19	Field Blank	Wipe	No PCBs Present
030617-20	Lab Blank	Wipe	No PCBs Present
030617-21	Field Blank	Air	No PCBs Present
030617-22	Lab Blank	Air	No PCBs Present

As air samples were not collected from the CTE room or the CTE Electrical Room, these rooms should not yet be returned to use by the District. Similarly, at this point I will defer to the previous remediation options developed for the District, but cleaning and sealing of the concrete floors in the electrical rooms may be appropriate.

A complete sampling report will be prepared and delivered to the District by tomorrow afternoon.

I understand that there may be other factors to consider, including comparison of these results to the results of the samples provided to EPA, but based on the results of this sampling event all spaces (except CTE and CTE Electrical Room) can be returned to typical use.

Please contact me if you have any questions.

Thank you,

Ryan

Ryan K. Mathews, CIH, CHMM

Principal



experience balance commitment

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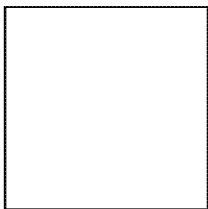
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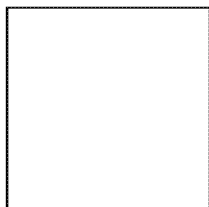
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